

FIG. 1

FIG. 2

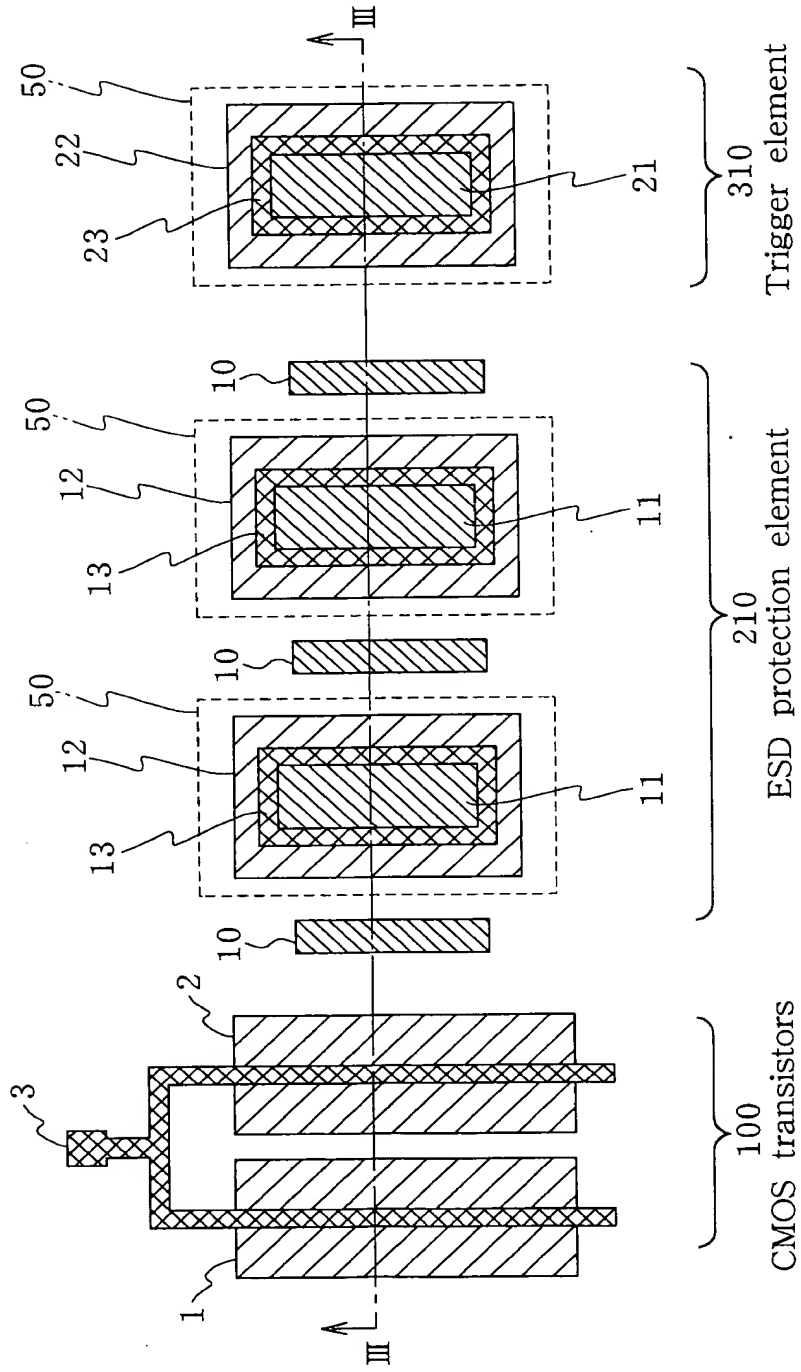


FIG. 4

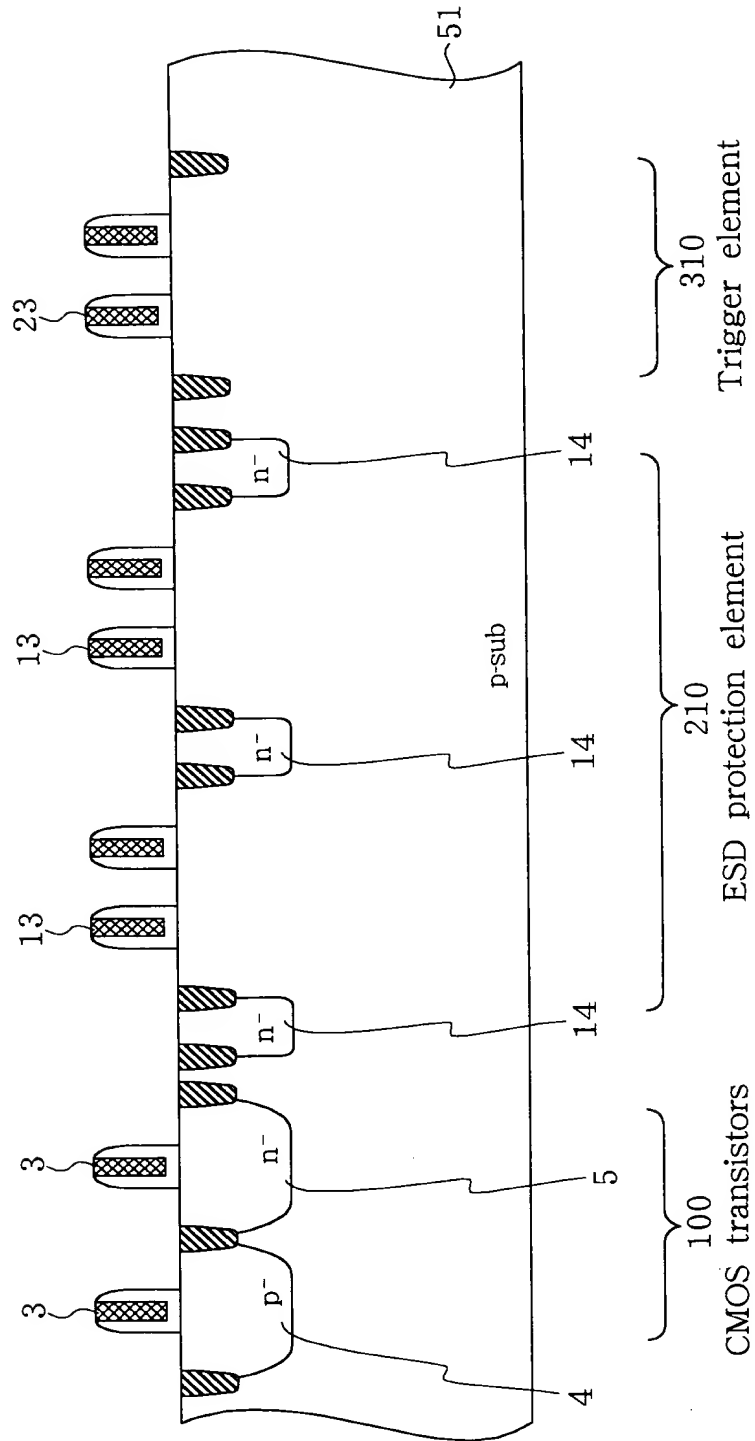
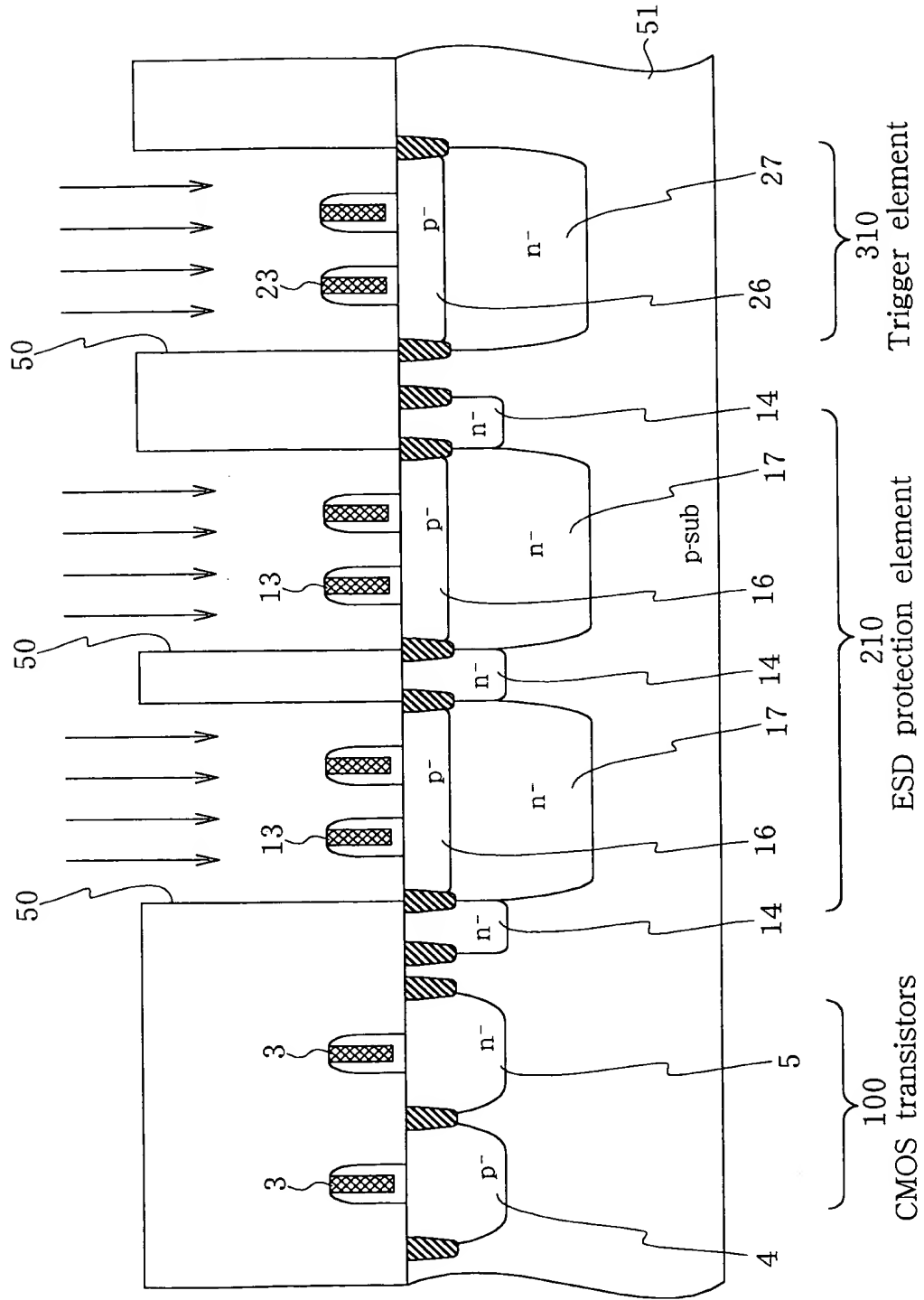


FIG. 5



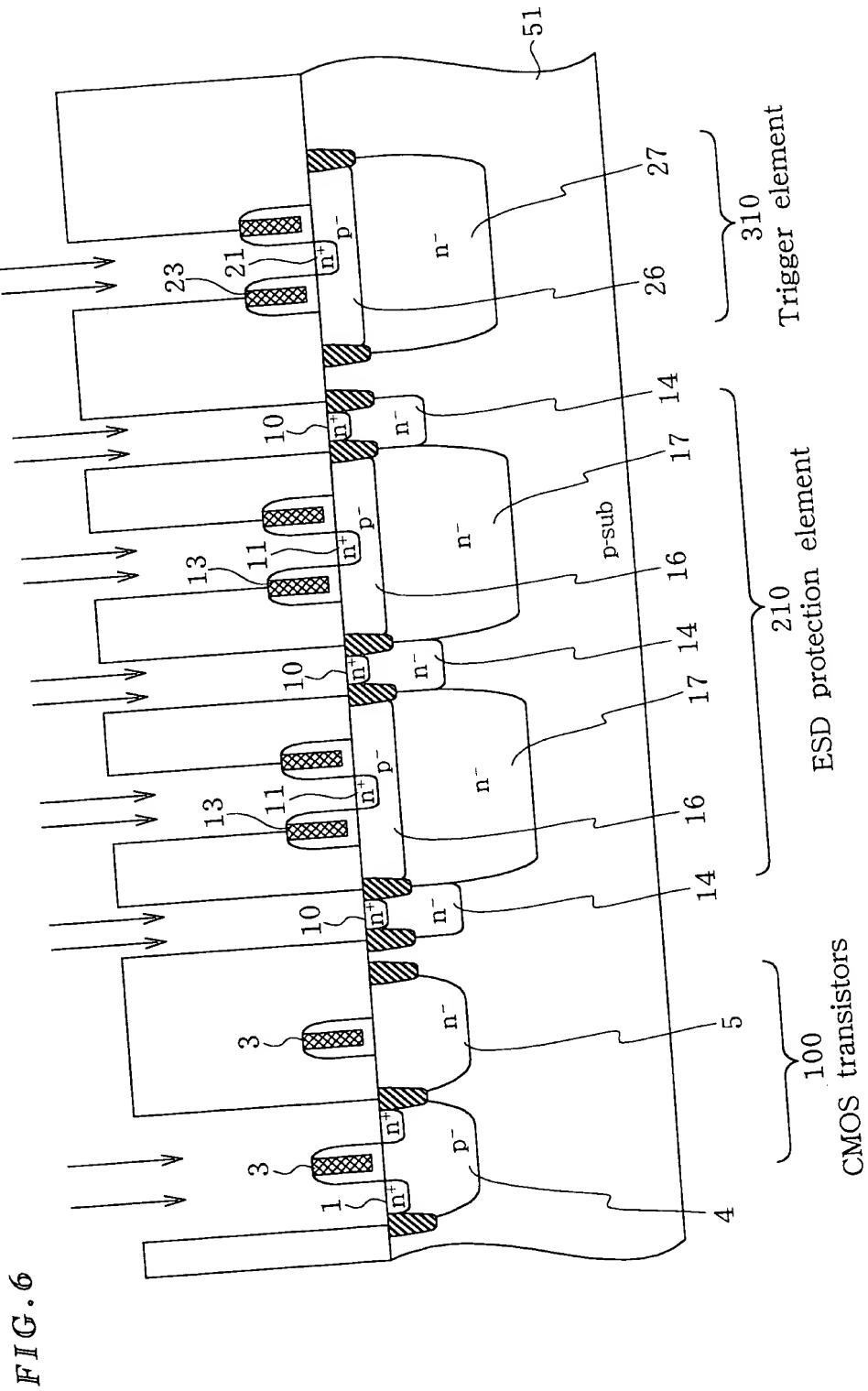
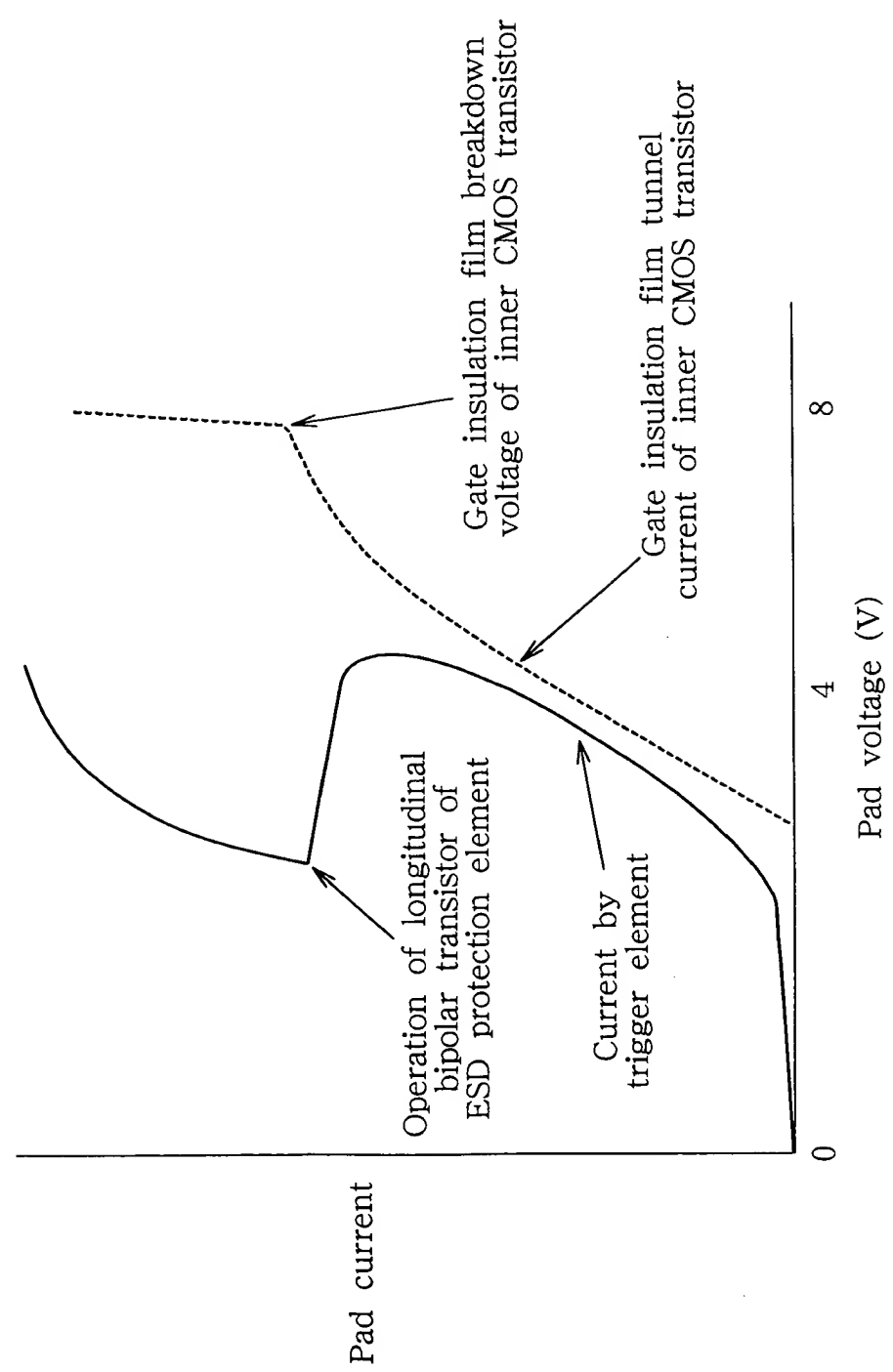


FIG. 7



Operation voltage of longitudinal bipolar transistor < gate insulation film breakdown voltage of inner CMOS transistor

FIG. 8

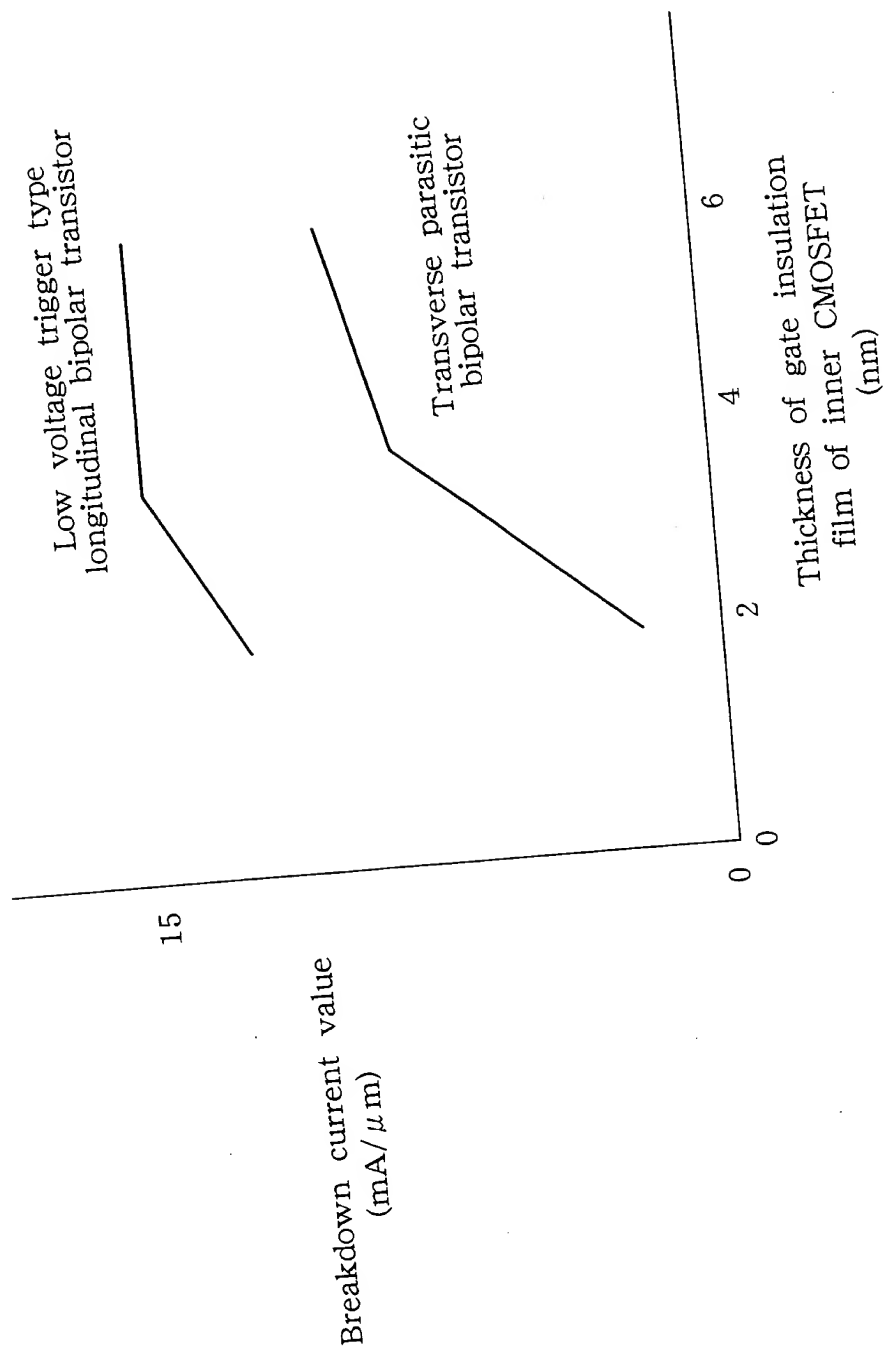


FIG. 9

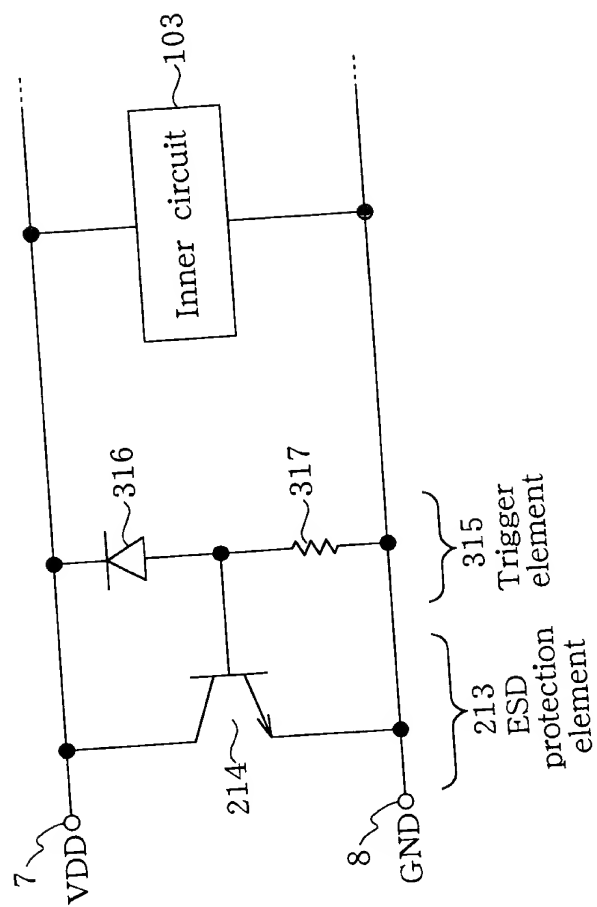


FIG. 10

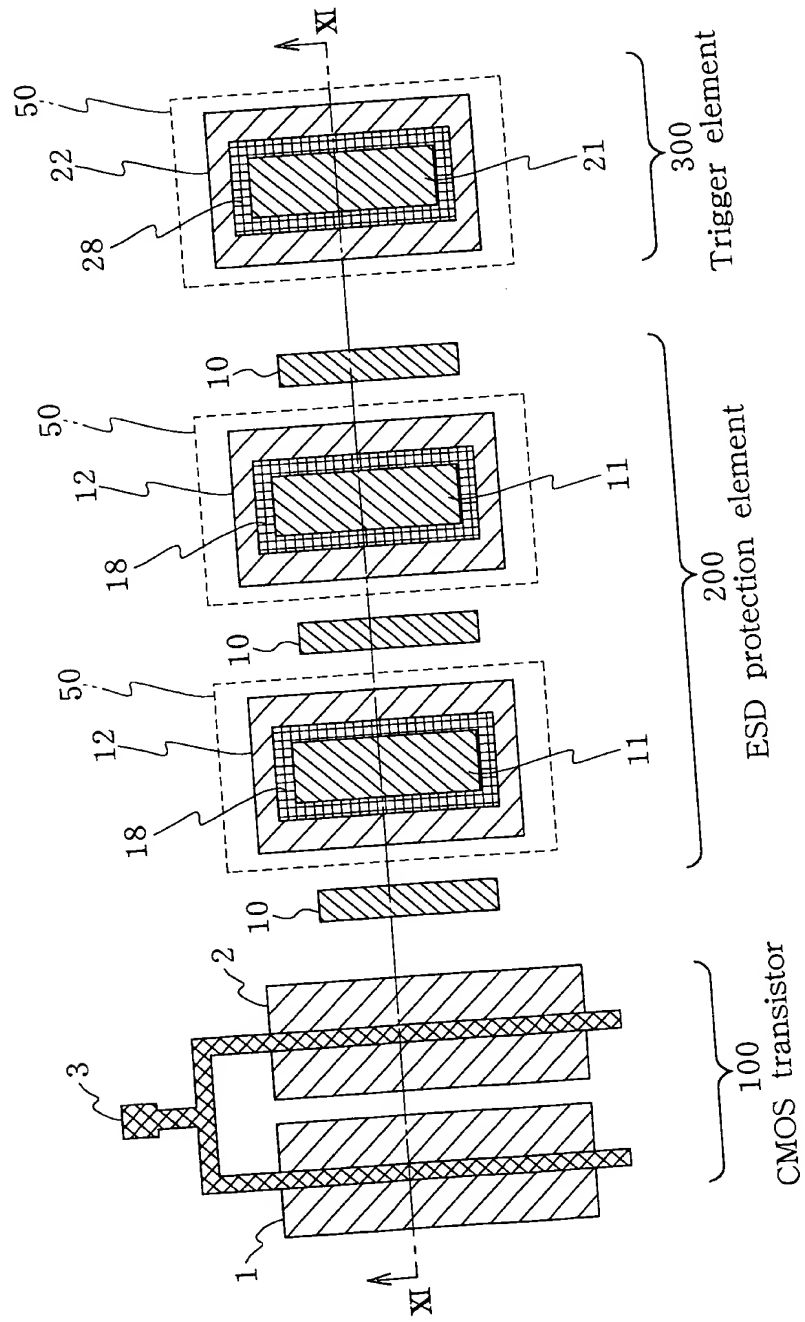
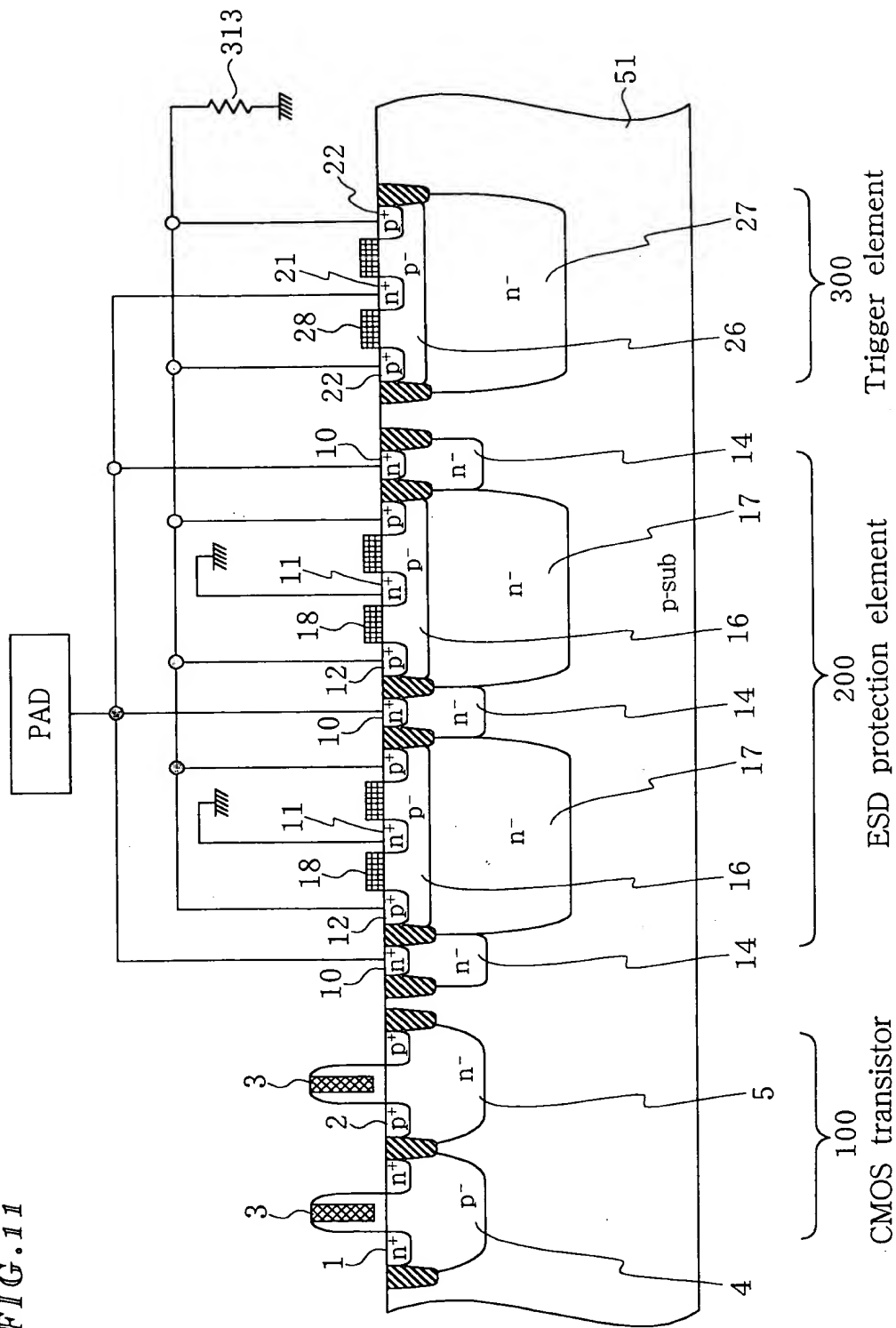


FIG. 11



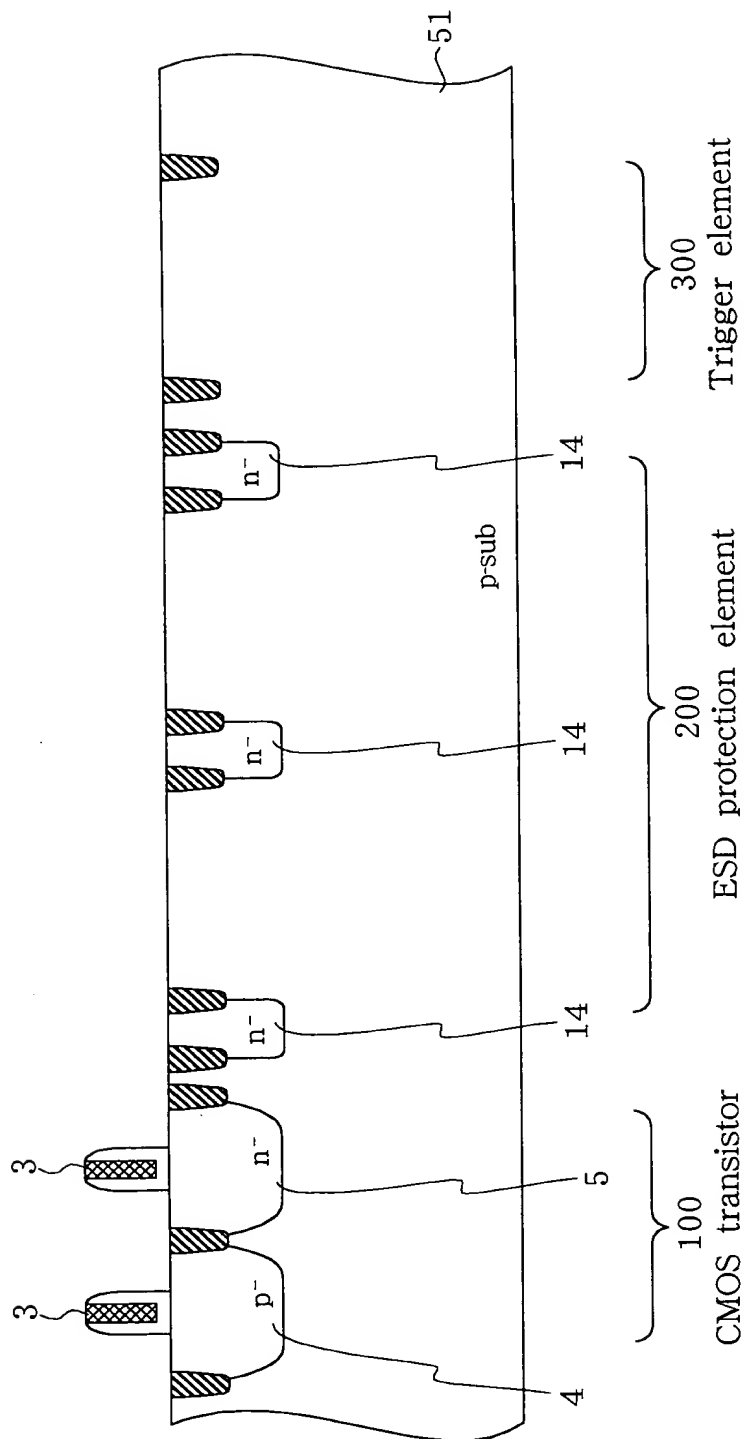


FIG.12

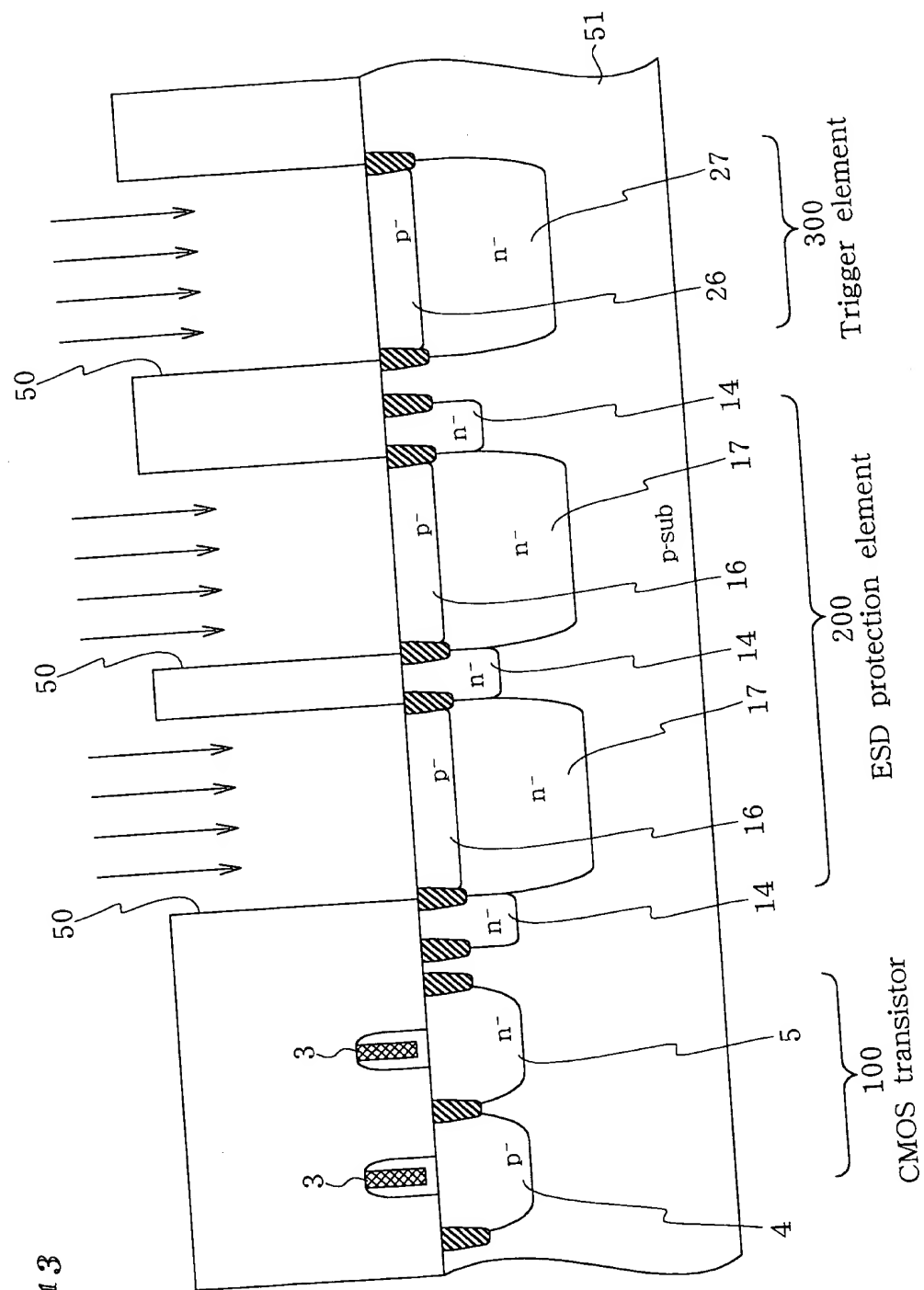


FIG. 13

FIG. 14

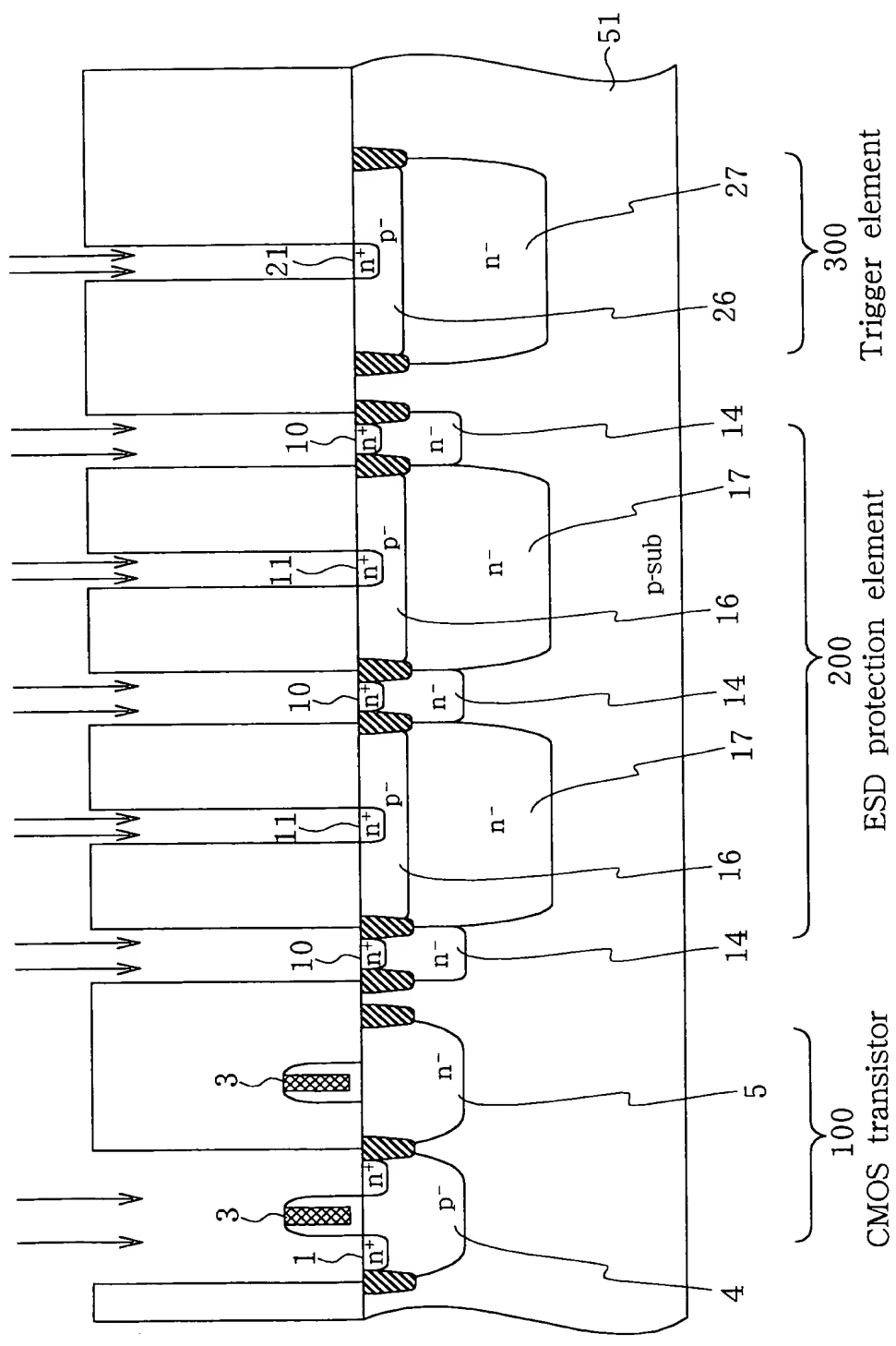


FIG. 15

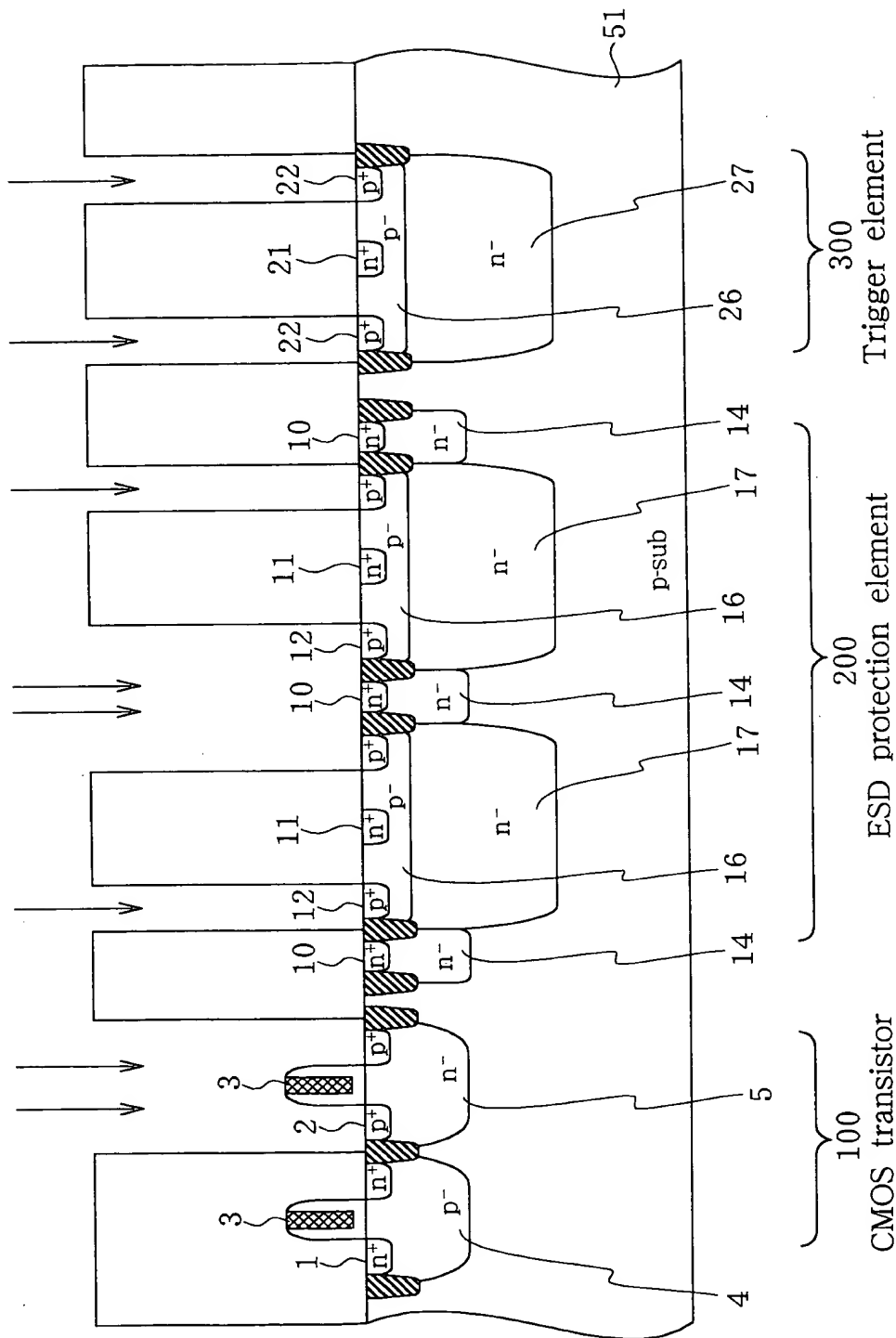


FIG. 16

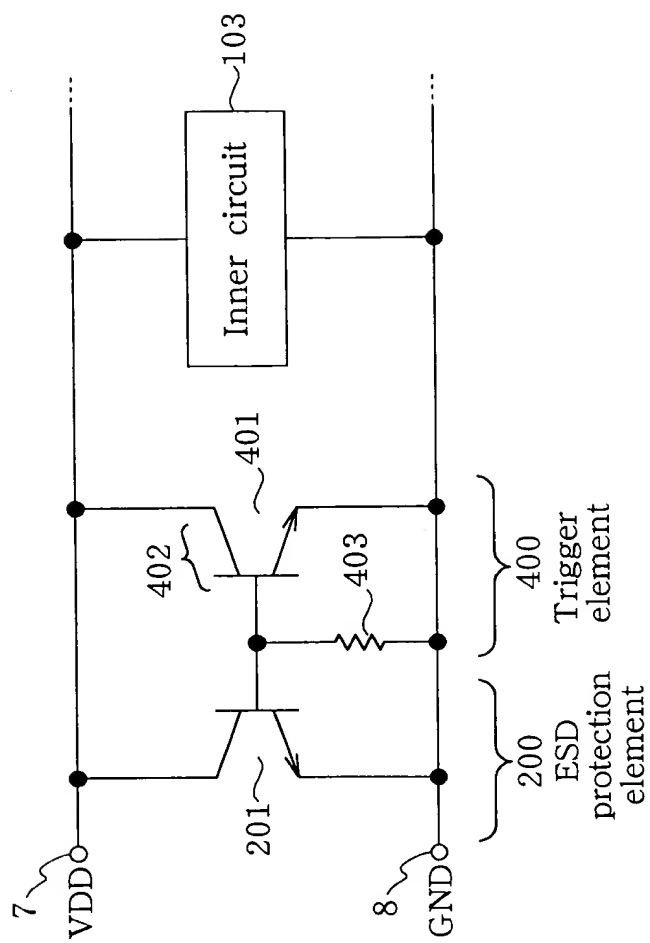


FIG. 17

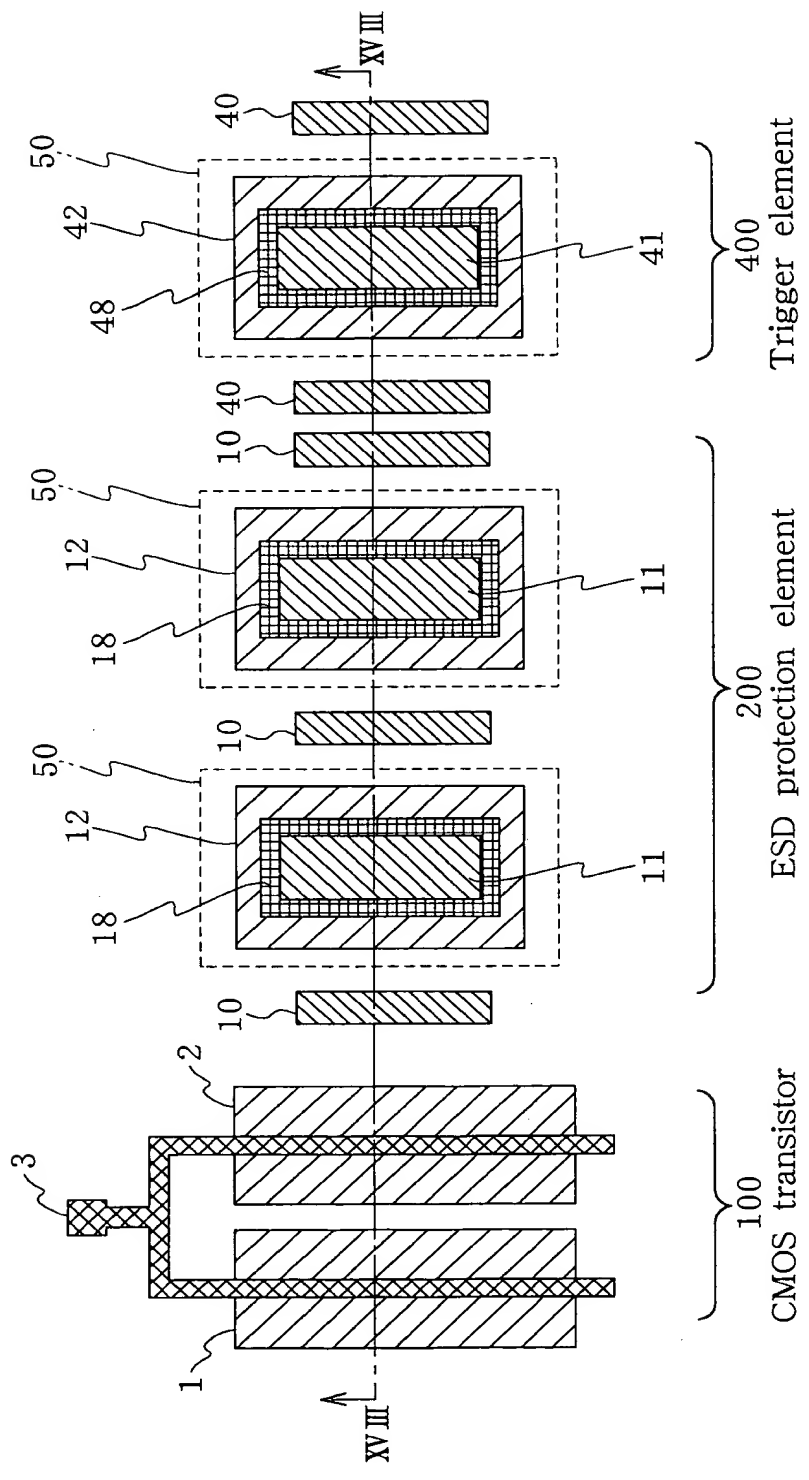
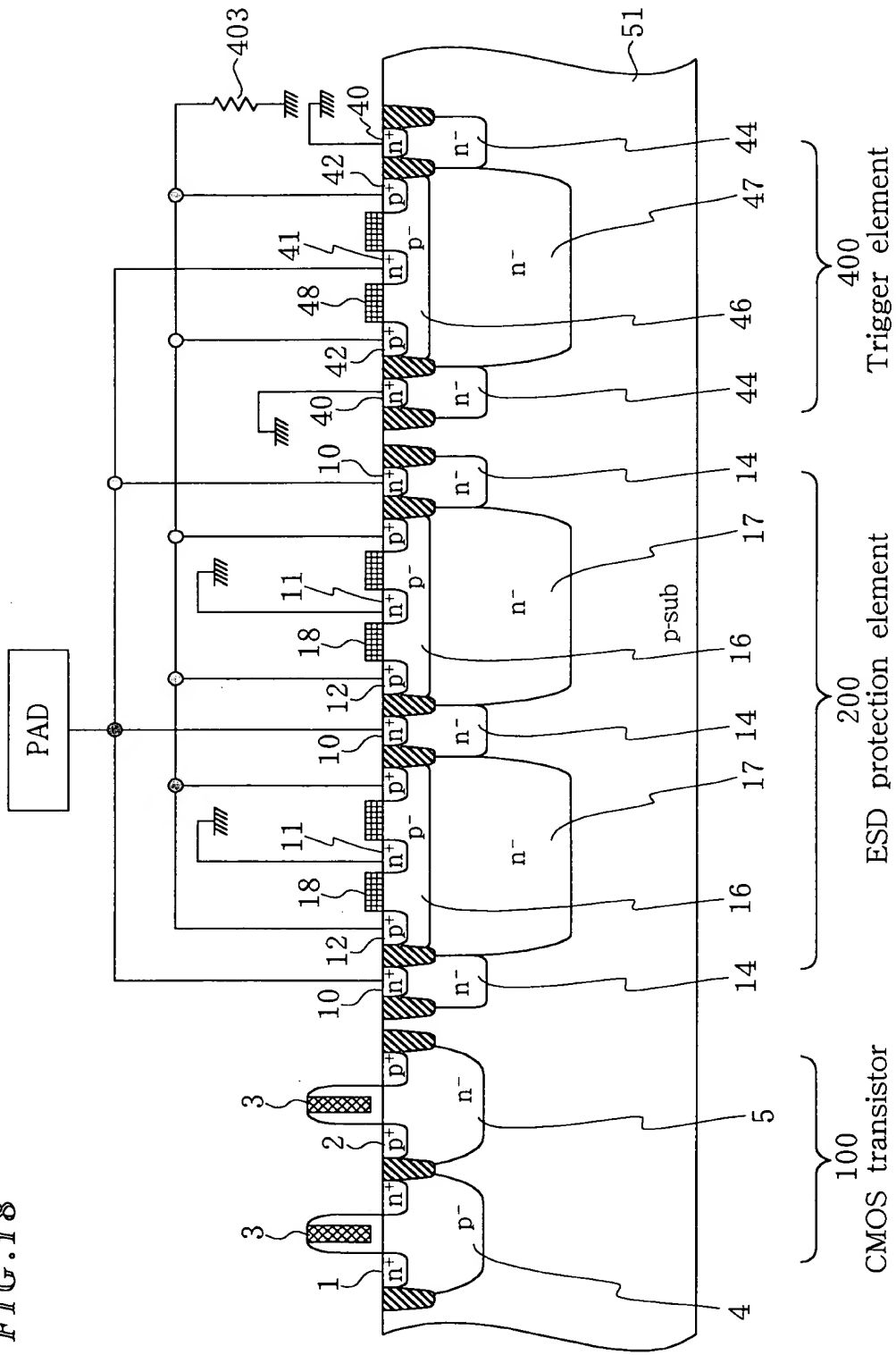


FIG. 17

FIG. 18



TOP SHEET

FIG. 19

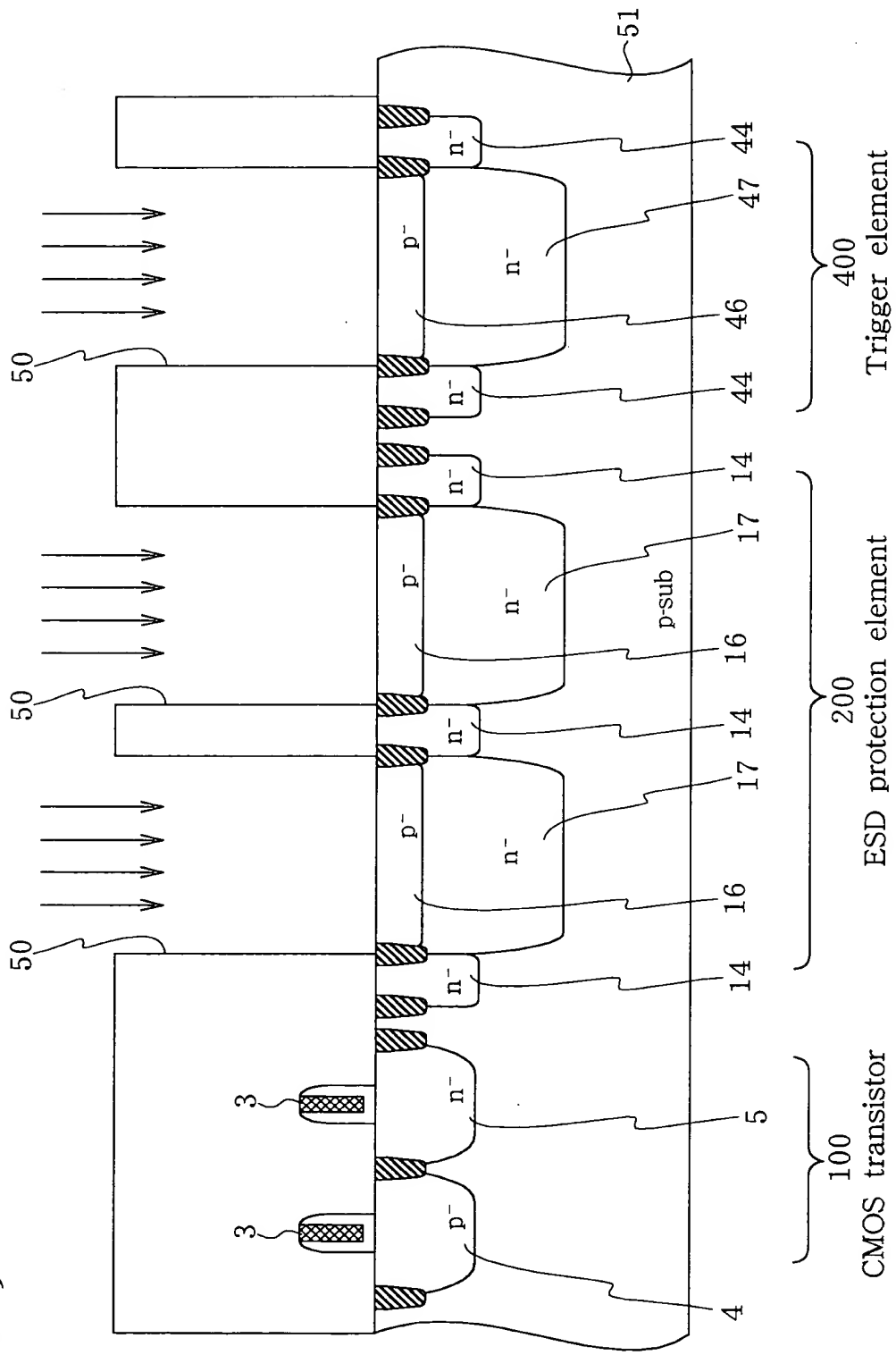


FIG. 20

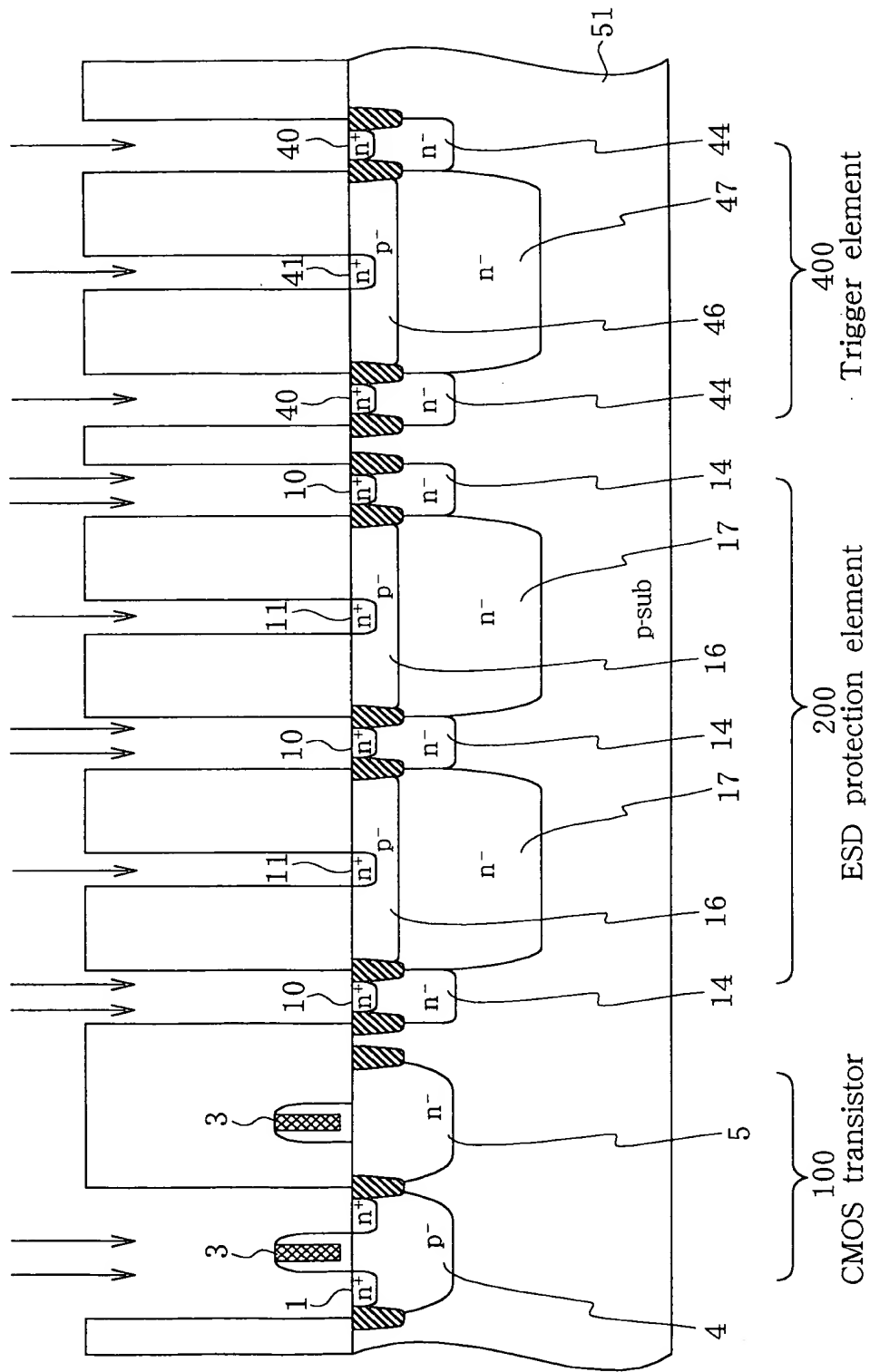
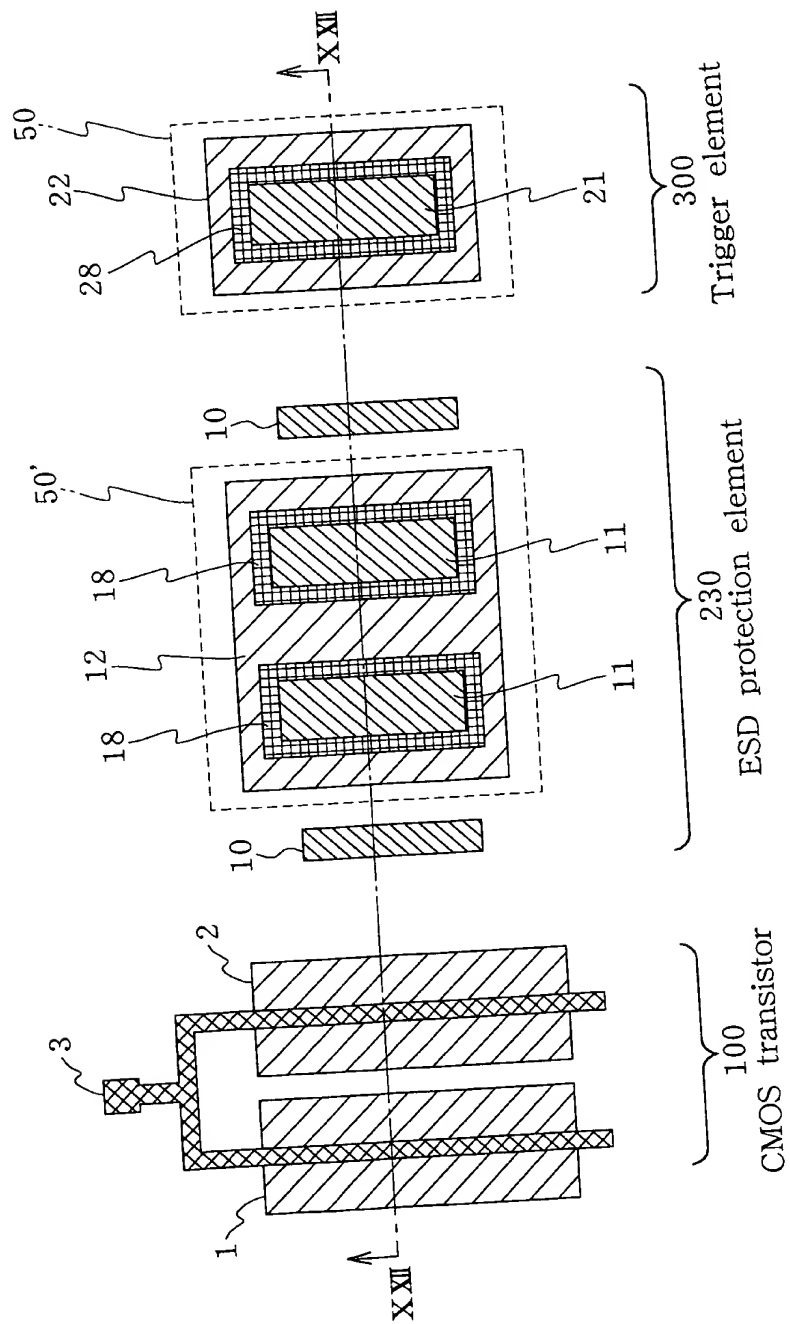


FIG. 21



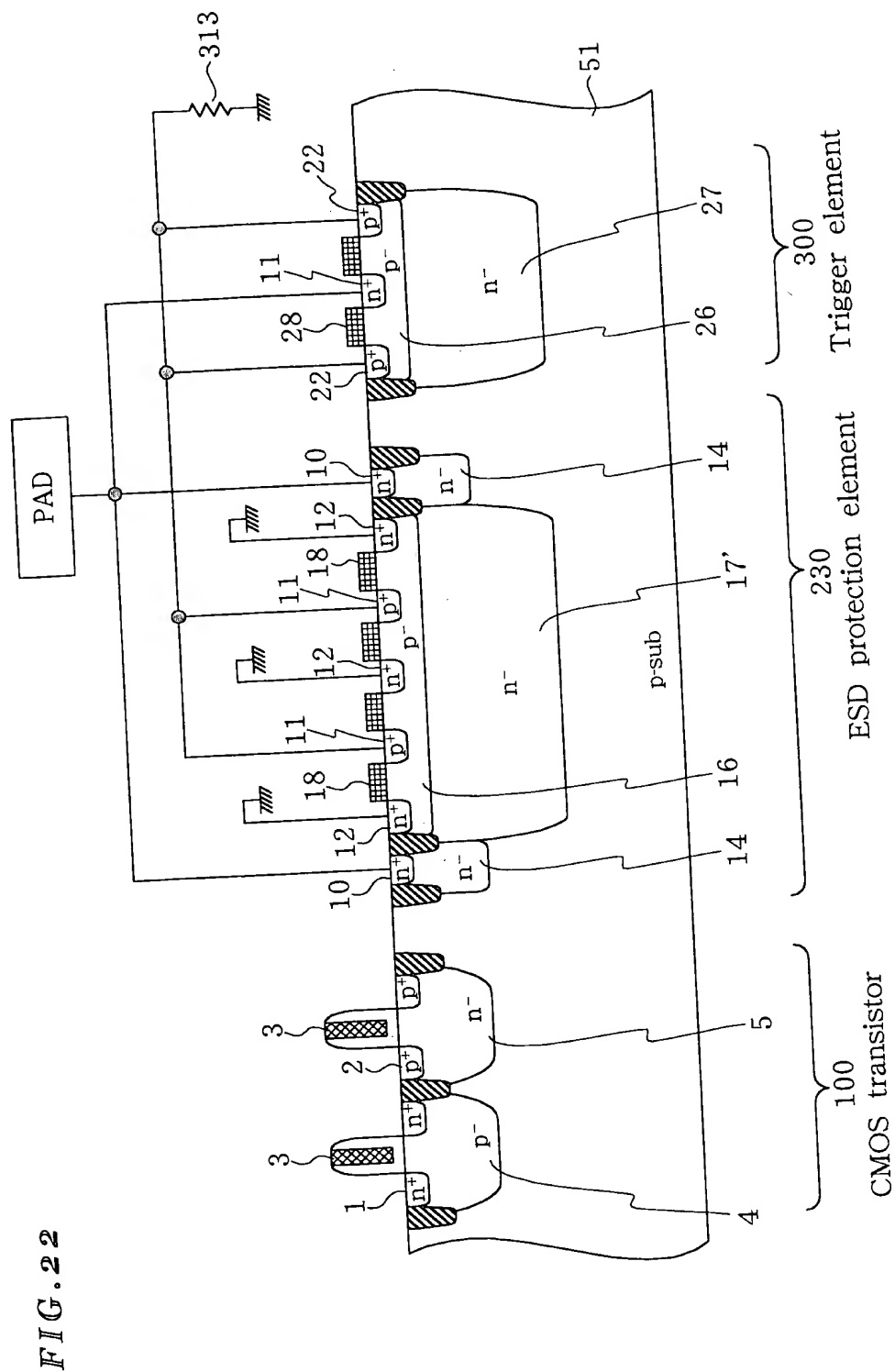


FIG. 24

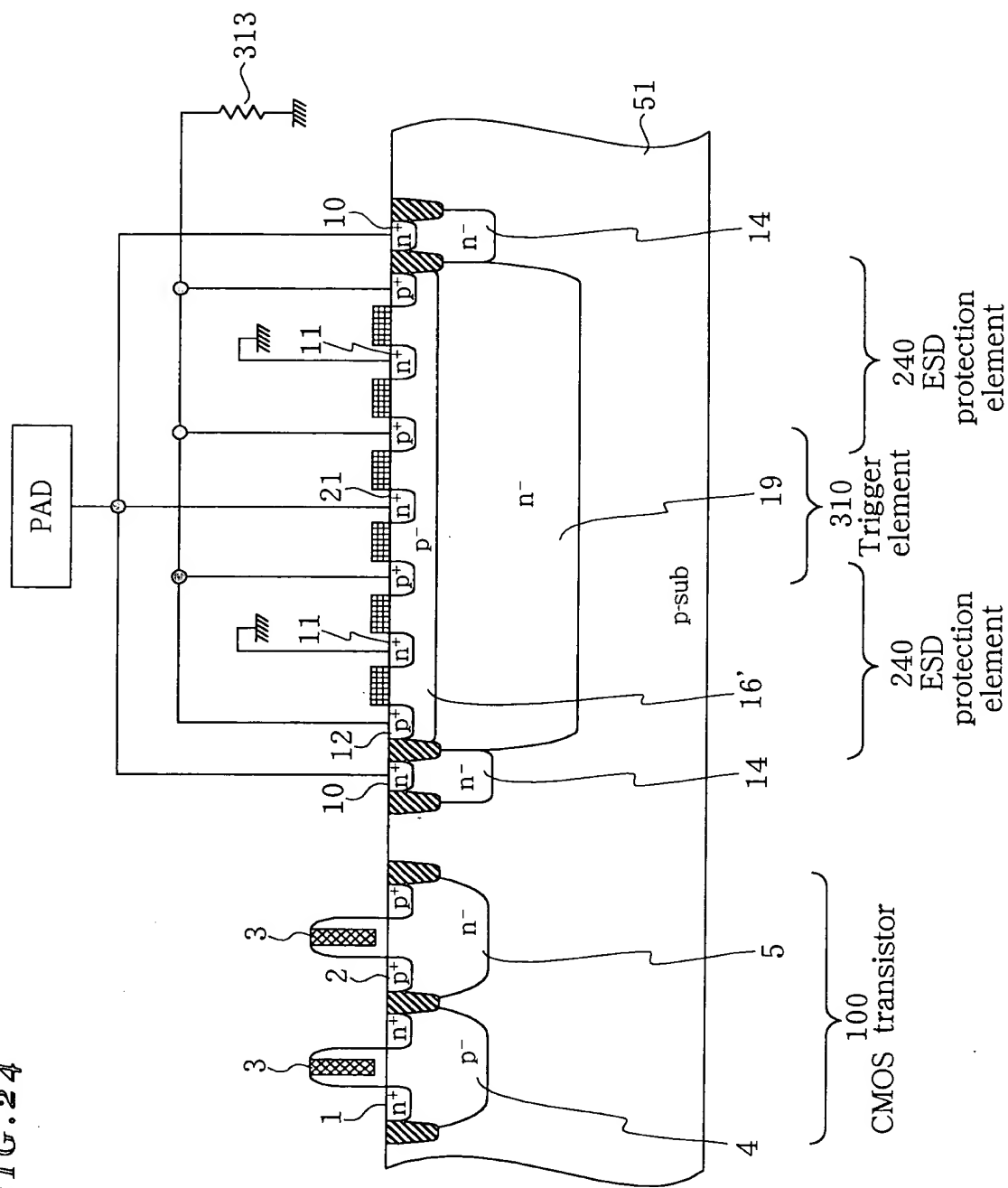


FIG. 25

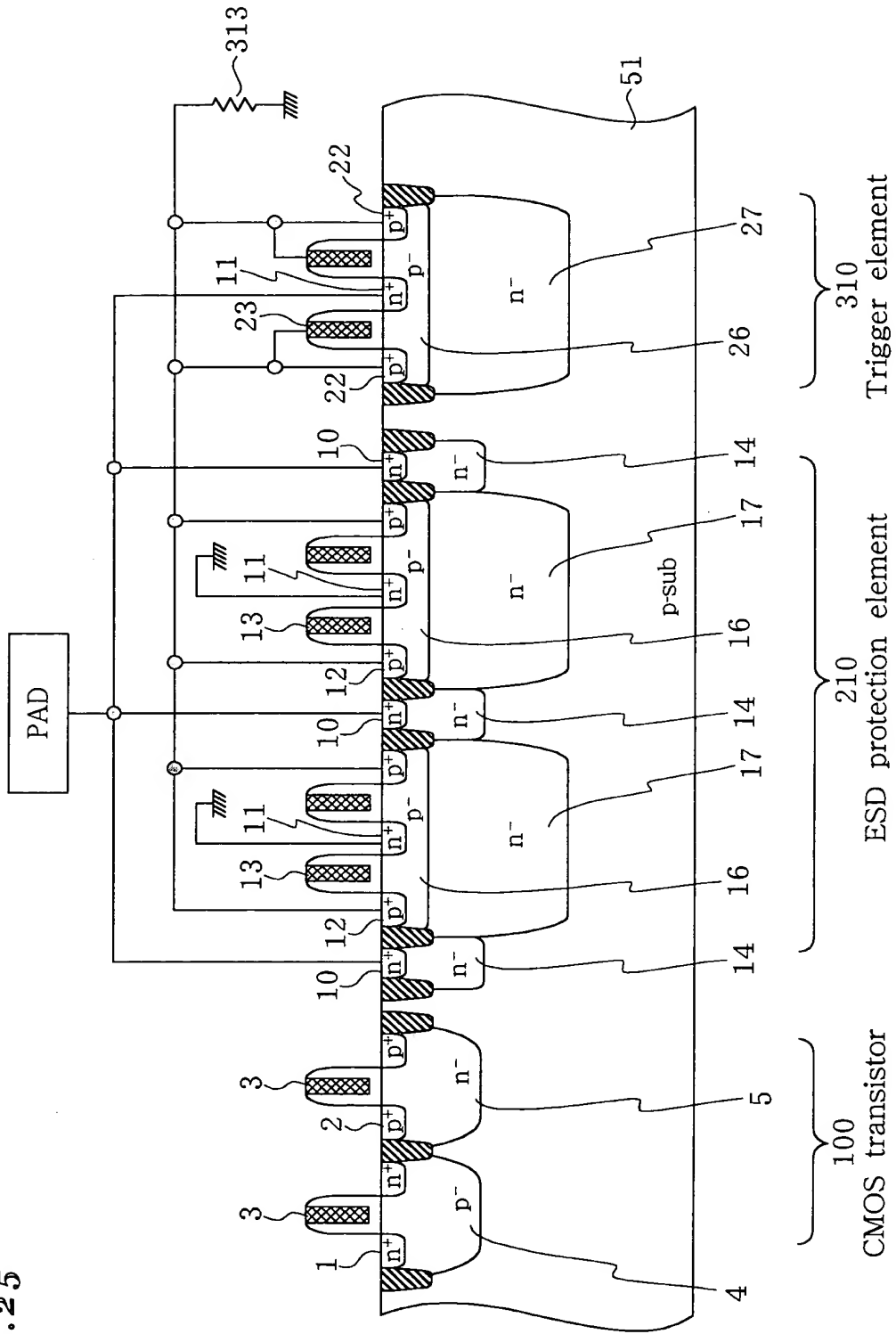


FIG. 26

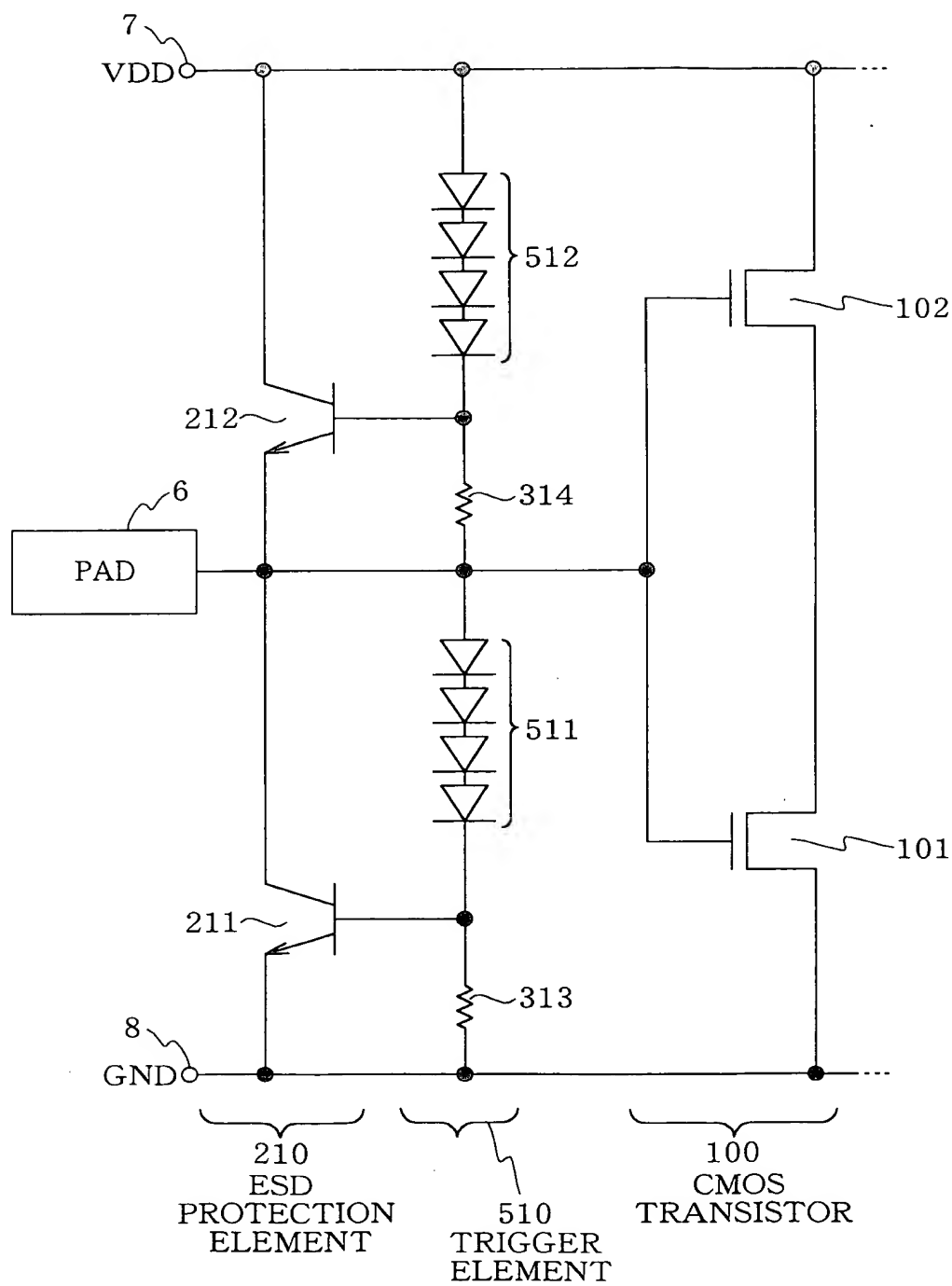
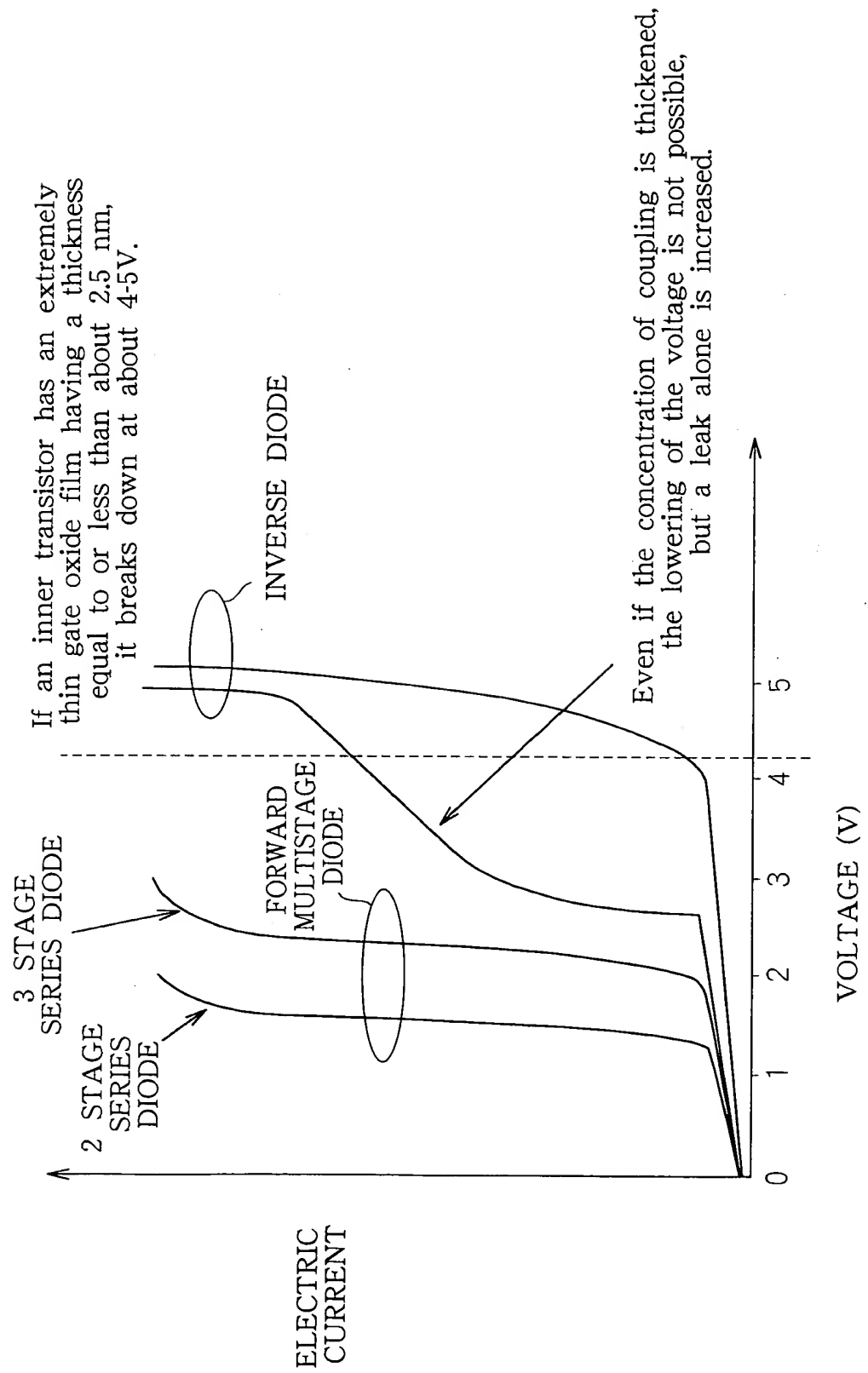


FIG. 28

COMPARISON OF FORWARD SERIES CONNECTION DIODE
AND INVERSE DIODE

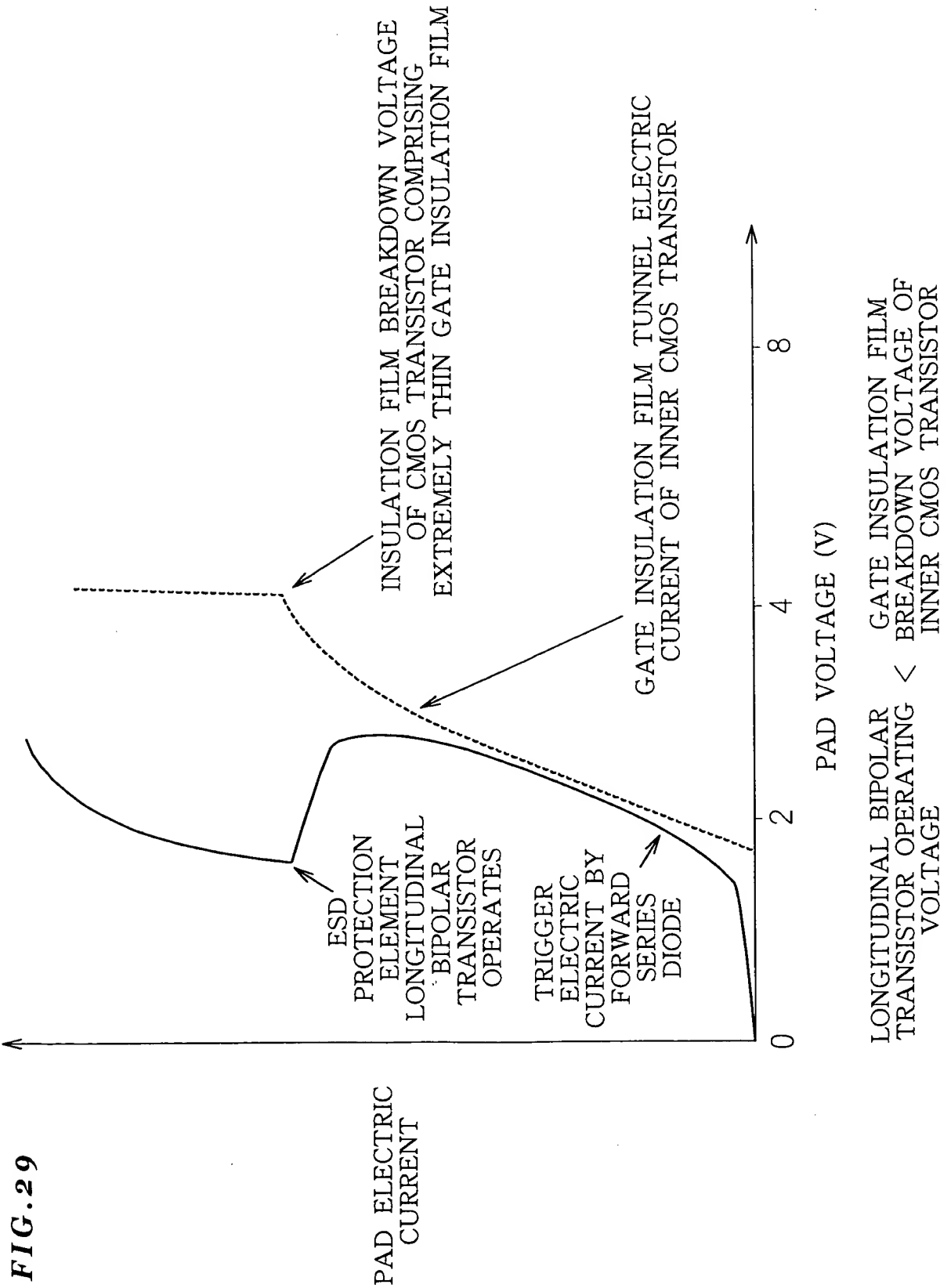


FIG. 29

FIG.30

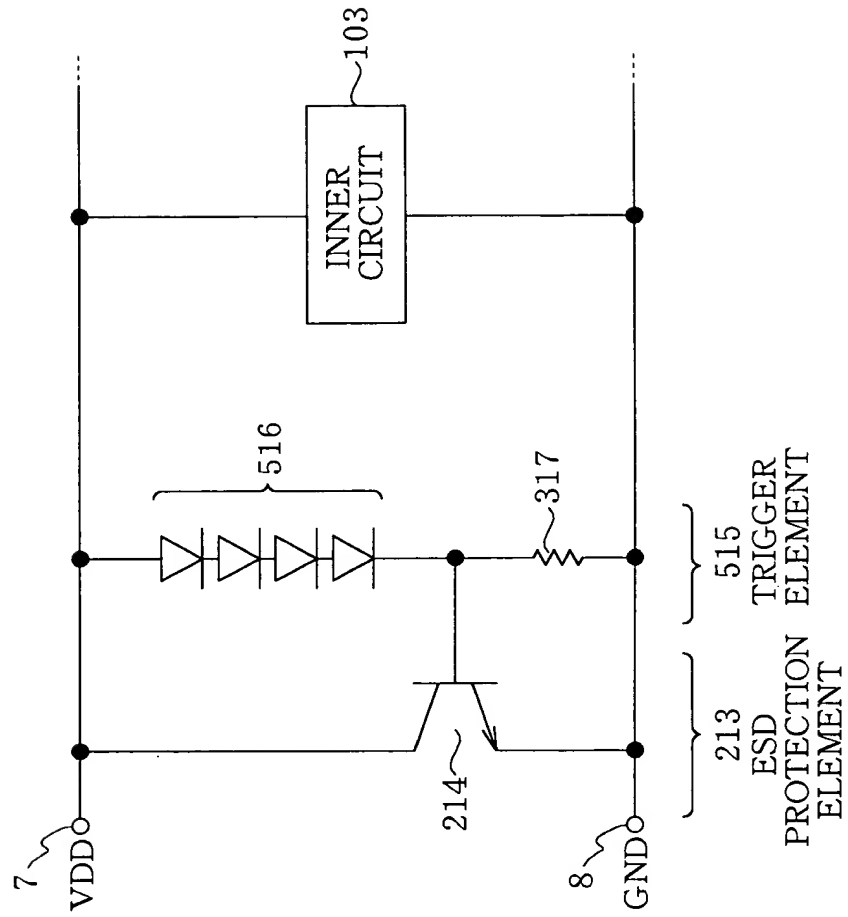


FIG. 31

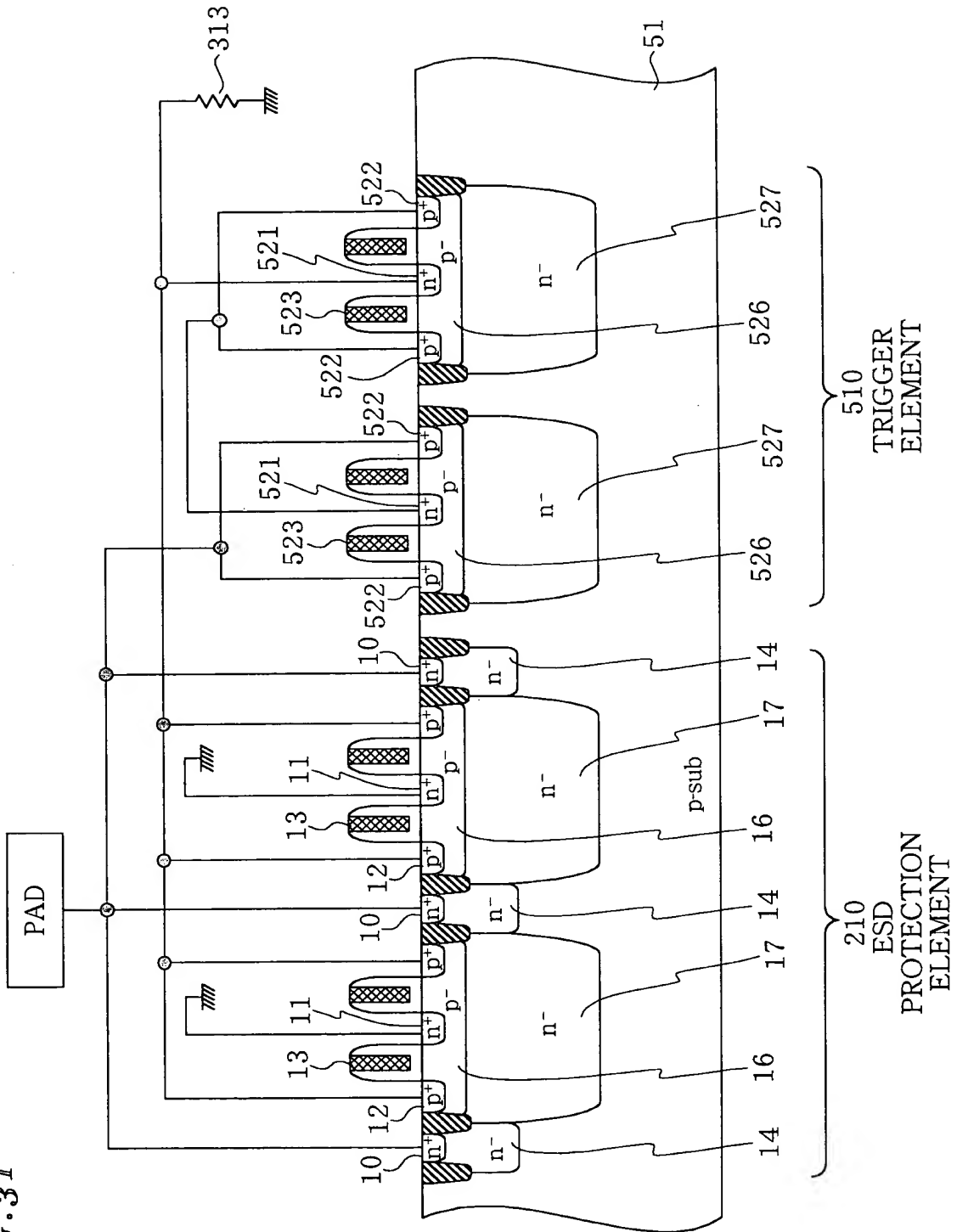
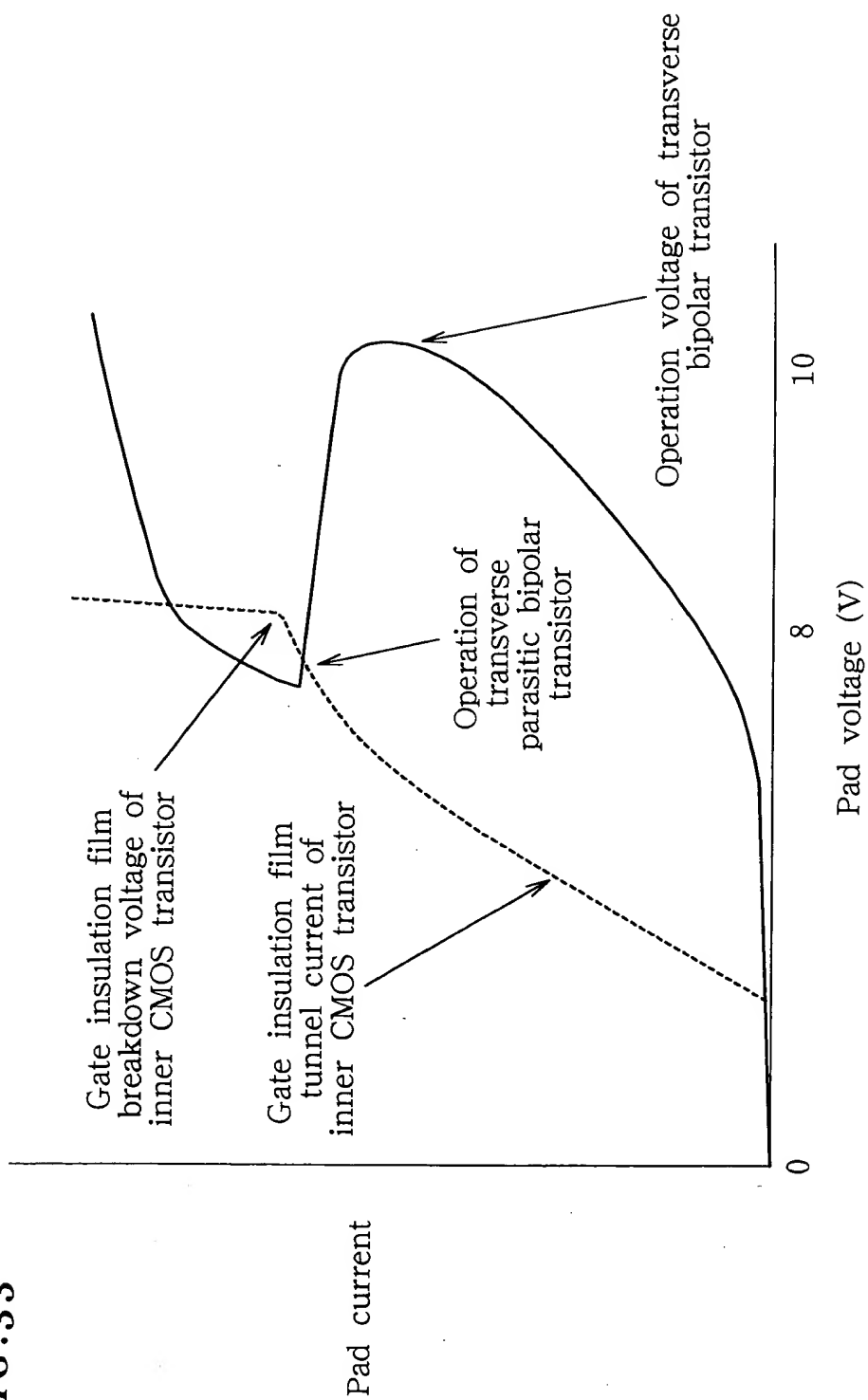


FIG.33



Operation voltage of transverse bipolar transistor < gate insulation film breakdown voltage of inner CMOS transistor